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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,207	02/20/2004	Jim B. Surjaatmadja	2003-IP-012367U1	6688

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EXAMINER	
CARRILLO, BIBI SHARIDAN	

ART UNIT	PAPER NUMBER
1746	

DATE MAILED: 07/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/783,207	SURJAATMADJA ET AL.	
	Examiner	Art Unit	
	Sharidan Carrillo	1746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 May 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,5-18 and 60-62* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3, 5-18, and 60-62* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-3 and 5-18 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The limitations of 350 microns to about 2380 microns and the pressure differential of above about 60 psi is not supported by the specification as originally filed. Paragraph 20 teaches a particle size in the range of about 400 to about 8 mesh. Paragraph 23 of the specification teaches a pressure differential below about 2000 psi. Paragraph 21 teaches a pressure differential in the range of 1500 psi to 10,000 psi.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1 and 60 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 60 are indefinite because of the phrase "allowing at least a portion

of at least one of the degradable particles to degrade". Specifically, the phrase is indefinite because it is unclear when the degradation is occurring. Does the particle degrade before, during or after the cleaning step. Claim 1 is indefinite because it is unclear what one of ordinary skill in the art would consider as a pressure differential". What is the differential? What two elements are being compared to form a difference in pressure? Does the pressure differential refer to the pressure difference at the inlet and outlet of a blast nozzle?

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-3 and 6-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Roelofs et al. (5993562).

Roelofs teaches a method of cleaning the interior surfaces of a fluid delivery system by blasting with an abrasive particle in a liquid carrier. In col. 6, lines 1-65, Roelofs teaches particle sizes ranging from 5 to 500 microns. In reference to claim 1, col. 5, lines 10-11 teaches an inlet pressure of 70 psi. In reference to claims 2-3, refer to col. 6, lines 53-55. In reference to claims 6-7 and 10-13, refer to col. 6, lines 30-39 which teach abrasive particles comprising starch, boric acid, calcium borate, zinc borate, and sodium bicarbonate. In reference to claims 8-9, refer to co. 6, lines 53-67.

In reference to claim 14, the limitations are inherently met since Roelofs teaches the claimed particle size.

7. Claims 1-3, 6-8, 10-15, and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Yam (5827114).

Yam teaches a method of cleaning a surface comprising jetting against a surface a cleaning fluid comprising a liquid base fluid with degradable particles having a particle size within the range of 10-10,000 microns, and a pressure of below 500 psi (abstract, col. 5, lines 35-40). In reference to allowing the particles to degrade, col. 9, lines 46-55 teaches that after contact with the substrate, the abrasive particles are broken down and have a smaller diameter. Re claim 2, refer to col. 6, lines 49-50. Re claim 3, refer to col. 1, lines 27-28 teaches water. Re claim 6, Yam teaches metal salts. Re claim 7, refer to col. 11, lines 15-17. Re claim 8, refer to col. 6, lines 1-55. Re claim 10-13, refer to col. 5, lines 65-68. Re claim 14, refer to col. 5, lines 33-40. Re claim 15, refer to col. 8, lines 59-60. Re claim 17, refer to col. 11, lines 19-20.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 1-3, 6, 14-15, 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yam (5512071).

Yam teaches a method of stripping contaminants from a solid surface comprising blasting the surface with water soluble abrasive particles having a particle size between 10-1000 microns at a pressure of from 10-100psi. Yam fails to specifically teach the particles degrading. However, one would have reasonably expected the particles to degrade since the abrasive particles are water soluble and are disposed in a water stream. Re claims 2-3, col. 3, lines 20-21. Re claim 6, col. 3, lines 32-85. Re claim 14,

col. 3, lines 10-15. Re claim 15, col. 6, lines 60-61. Re claim 17, col. 5, lines 34-35. Re claim 18, col. 6, lines 59-60.

12. Claims 1-3, 5 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto (457396) in view of Yam et al. (5827114).

Matsumoto teaches a method of wet blasting a surface with blasting media in order to clean the surface. In col. 3, lines 5-10, Matsumoto teaches blasting media comprising particles having a diameters of less than 0.5mm, which is equivalent to 500 microns. In col. 6, lines 20-25, Matsumoto teaches jetting the blasting media with water and compressed air against the object to be cleaned.

Matsumoto fails to teach the limitations of directing a jet at a pressure differential of about 60 psi. Yam teaches wet blasting at liquid pressures of less than 500 psi in order to effectively remove contaminants. It would have been within the level of the skilled artisan to include a pressurized stream, as taught by Yam, for purposes of blasting the surface in order to enhance the removal of contaminants from the substrate surface. In reference to the particle degrading, one would reasonably expect the particles to degrade since Matsumoto teaches the same polymeric particle (polycarbonate and polyester), as the instantly claimed invention. Matsumoto teaches the genus polycarbonate and polyester as the claimed invention. Matsumoto teaches the genus polycarbonate and polyester, which would include aliphatic polycarbonate and aliphatic polyester. Therefore, one would reasonably expect the particles of Matsumoto to be capable of degradation as well. In reference to claims 2-3, refer to col. 6, lines 20-25. In reference to claim 5, refer to col. 4, lines 27-29. In reference to claim

14, the limitations are met since Matsumoto teaches a particle size of less than 500 microns.

13. Claims 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yam (5827114) in view of Yam et al. (5865902).

Yam teaches the blast nozzle 20 at an angle to blast the substrate surface. Yam fails to teach the angles recited in claim 16. Yam teaches a method of cleaning contaminants from a substrate. Col. 5, lines 45-60 teaches positioning the blast nozzle at an angle of about 30 degrees for purposes of effectively removing contaminants from the substrate surface. It would have been within the level of the skilled artisan to have modified the method of Yam to include positioning the blast nozzle at an angle of about 30 degrees, as taught by Yam, for purposes of effectively removing contaminants from the substrate surface. Yam '114 fails to teach the amount of degradable particles. Col. 5, lines 30-35 of Yam '902 teaches 1-10 lbs of media. It would have been within the level of the skilled artisan to have adjusted the amount of abrasive particles in solution, depending on the type of surface to be cleaned and the amount of contaminants present on the substrate surface.

14. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Roelofs et al. (5993562) in view of Houghton (EP0510762).

Roelofs fails to teach the limitations of claim 17. Houghton teaches a cleaning composition comprising abrasive particles, such as perborate compounds. On page 8, lines 50-65, Houghton teaches that the cleaning compositions include conventional adjuvants such as corrosion inhibitors. It would have been obvious to a person of

ordinary skill in the art to modify the method of Roelofs to include adjuvants, such as corrosion inhibitors, as taught by Houghton, which are conventionally used in the cleaning compositions.

15. Claims 60-62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto (457396) .

Matsumoto teaches a method of wet blasting a surface with blasting media in order to clean the surface. In col. 3, lines 5-10, Matsumoto teaches blasting media comprising particles having a diameters of less than 0.5mm, which is equivalent to 500 microns. In col. 6, lines 20-25, Matsumoto teaches jetting the blasting media with water and compressed air against the object to be cleaned.

In reference to the particle degrading, one would reasonably expect the particles to degrade since Matsumoto teaches the same polymeric particle (polycarbonate and polyester), as the instantly claimed invention. Matsumoto teaches the genus polycarbonate and polyester as the claimed invention. Matsumoto teaches the genus polycarbonate and polyester, which would include aliphatic polycarbonate and aliphatic polyester. Therefore, one would reasonably expect the particles of Matsumoto to be capable of degradation as well. In reference to claims 61-62, refer to col. 4, lines 25-29 and col. 3, lines 3-5.

Response to Arguments

16. The rejection of the claims, under 112, first paragraph, new matter is maintained since the newly amended limitations of pressure and particle size are not supported by the specification as originally filed. On page 9 of applicant's response, applicant states

that a size of 400 mesh corresponds to 37 microns and a size of 8 mesh corresponds to 2380 microns. The limitation of 350 microns are not supported by the originally filed specification.

17. The rejection of the claims, as being anticipated by Matsumoto et al. is withdrawn in view of the newly amended claims. Applicant argues that Matsumoto fails to teach degradable particles. Applicant argues that Matsumoto teaches patent 3,313,067 which teaches aromatic polycarbonates. The examiner agrees that '067 teaches aromatic polycarbonates. However, there is not specific teaching that the polycarbonates, recited in Matsumoto are aromatic. Applicant has applied the teachings of '067 out of context. Matsumoto describes prior art in the background of the invention and refers to the '067 patent. However, there is no teaching that the polycarbonates which Matsumoto uses are only aromatic. Matsumoto teaches the genus polycarbonate and polyester, which would include aliphatic polycarbonate and aliphatic polyester. Therefore, one would reasonably expect the particles of Matsumoto to be capable of degradation as well. Therefore, the claims are unpatentable over Matsumoto et al. for the reasons recited above.

18. The rejection of the claims as being anticipated by Yam is withdrawn in view of the newly amended claims.

19. The rejections of the claims as being anticipated and unpatentable over Roelofs in view of the secondary references are maintained. Applicant argues that Roelofs fails to teach the pressure differential above about 60 psi. Applicant's arguments are unpersuasive since Roelofs teaches an inlet pressure of 70 psi. Additionally, the

difference in pressure between the inlet and outlet pressures is 60 psi, which would read on the limitations of "above about 60 psi", since 59 psi would be considered "about 60 psi". Additionally it is unclear what one would consider as the pressure differential, as described above.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Maasberg et al. teach blasting a solid surface. Kirschner et al. teach a blasting apparatus. Yam teaches a water soluble blast media. Bishop teaches carbon dioxide cleaning process. Lewellen teaches cryogenic polishing method. Lin et al. teach cleaning and refurbishing chamber components. Schweitzer teach cleaning of chamber components. West teaches cleaning chamber components.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharidan Carrillo whose telephone number is 571-272-1297. The examiner can normally be reached on M-W 6:30-4:00pm, alternating Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on 571-272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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bsc

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